

# Comparisons of Job Characteristics

**Focus Occupation:** [Electro-Mechanical Technicians \(17-3024\)](#)

**Associated Occupation:** [Electrical and Electronic Engineering Technicians \(17-3023\)](#)

[Compare Knowledge](#)

[Compare Skills](#)

[Compare Abilities](#)

[Compare Detailed Work Activities](#)

[Compare Tools and Technologies](#)

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

## Knowledge

Similarity of Focus Occupation to Associated Occupation: 92

**Focus Occupation:** Electro-Mechanical Technicians (17-3024)

**Associated Occupation:** Electrical and Electronic Engineering Technicians (17-3023)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation
Computers and Electronics	8.4	15.8	16.1	0 Current knowledge level may be sufficient
Engineering and Technology	5.7	12.4	14.2	> Current knowledge level is likely sufficient
Mechanical	6.8	11.6	15.6	>> Current knowledge level is likely more than sufficient
Design	5.2	10.2	7.8	<< Extensive education and/or training may be required
Telecommunications	3.9	8.4	3.0	<< Extensive education and/or training may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

## Skills

Similarity of Focus Occupation to Associated Occupation: 61

**Focus Occupation:** Electro-Mechanical Technicians (17-3024)

**Associated Occupation:** Electrical and Electronic Engineering Technicians (17-3023)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation
Quality Control Analysis	5.9	8.8	12.9	>> Skill level is likely more than sufficient
Troubleshooting	4.5	8.8	12.8	>> Skill level is likely more than sufficient
Repairing	3.4	8.0	12.3	>> Skill level is likely more than sufficient
Equipment Maintenance	3.5	7.9	10.8	>> Skill level is likely more than sufficient
Equipment Selection	3.3	7.0	9.2	>> Skill level is likely more than sufficient
Technology Design	2.6	4.9	2.4	<< Extensive development of skills in this area may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

Abilities		Similarity of Focus Occupation to Associated Occupation: 86			
Focus Occupation: Electro-Mechanical Technicians (17-3024)					
Associated Occupation: Electrical and Electronic Engineering Technicians (17-3023)					
Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Oral Comprehension	12.5	12.2	11.5	0	Current ability level may be sufficient
Problem Sensitivity	11.1	12.0	10.8	<	Some improvement in abilities may be required
Written Comprehension	11.0	12.0	10.8	<	Some improvement in abilities may be required
Near Vision	11.1	11.6	13.5	>	Current ability level is likely sufficient
Oral Expression	12.4	11.6	11.2	0	Current ability level may be sufficient
Deductive Reasoning	10.6	11.1	11.8	0	Current ability level may be sufficient
Information Ordering	9.9	11.0	11.6	0	Current ability level may be sufficient
Written Expression	9.8	10.7	9.6	<	Some improvement in abilities may be required
Finger Dexterity	7.6	9.9	12.5	>	Current ability level is likely sufficient
Visualization	7.5	9.8	10.8	>	Current ability level is likely sufficient
Visual Color Discrimination	6.4	9.6	10.6	>	Current ability level is likely sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

Activities that Both Occupations Have in Common		Similarity of Focus Occupation to Associated Occupation: 94
Focus Occupation: Electro-Mechanical Technicians (17-3024) Associated Occupation: Electrical and Electronic Engineering Technicians (17-3023)		
Work Activities	Exclusivity of Activity	
Analyze technical data, designs, or preliminary specifications	47	
Analyze test data	64	
Calculate engineering specifications	64	
Communicate technical information	4	
Develop plans for programs or projects	31	
Evaluate engineering data	60	
Examine engineering documents for completeness or accuracy	62	
Fabricate, assemble, or disassemble manufactured products by hand	11	
Inspect facilities or equipment for regulatory compliance	51	
Install electronic equipment, components, or systems	62	
Install/connect electrical equipment to power circuit	57	
Modify electrical or electronic equipment or products	74	

Operate precision test equipment	81
Prepare technical reports or related documentation	22
Read blueprints	10
Read manufacturing outlines for electronic products	84
Read schematics	34
Read technical drawings	7
Repair or replace electrical wiring, circuits, fixtures, or equipment	49
Set up and operate variety of machine tools	62
Solder electrical or electronic connections or components	55
Test equipment as part of engineering projects or processes	67
Understand engineering data or reports	48
Understand service or repair manuals	40
Understand technical operating, service or repair manuals	6
Use electrical or electronic test devices or equipment	40
Use hand or power tools	2
Use knowledge of metric system	39
Use oscilloscopes in electronics repair	77
Use precision measuring tools or equipment	17
Use scientific research methodology	21
Use technical information in manufacturing or industrial activities	67
Use technical regulations for engineering problems	61

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

## Tools and Technologies that Both Occupations Have in Common

Similarity of Focus  
Occupation to Associated  
Occupation: 82

**Focus Occupation: Electro-Mechanical Technicians (17-3024)**

**Associated Occupation: Electrical and Electronic Engineering Technicians (17-3023)**

Tools and Technologies	Exclusivity
Business function specific software	1
Cameras	2
Computer data input devices	2
Computer printers	2
Computers	1
Content authoring and editing software	1
Cutting and crimping and punching tools	3
Data management and query software	1
Development software	4
Electrical measuring and testing equipment	7
Electronic and communication measuring and testing instruments	14
Holding and clamping tools	3
Indicating and recording instruments	2
Industry specific software	1
Integrated circuits	18

Light and wave generating and measuring equipment	4
Machine tools	7
Operating environment software	12
Power tools	2
Soldering and brazing and welding machinery and supplies	6
Viewing and observing instruments and accessories	4
Vision protection and accessories	3
Wrenches and drivers	2

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.